## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

### (19) World Intellectual Property Organization International Bureau



## 

(43) International Publication Date 12 January 2006 (12.01.2006) PCT

# (10) International Publication Number WO 2006/002566 Al

(51) International Patent Classification<sup>7</sup>:

G08B 21/10,

(21) International Application Number:

PCT/CH2005/000365

(22) International Filing Date:

30 June 2005 (30.06.2005)

(25) Filing Language:

English

(26) Publication Language:

**English** 

(30) Priority Data:

PCT/EP2004/051317 30 June 2004 (30.06.2004) E

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US

PCT/EP04/5 1317 (CIP)

Filed on

30 June 2004 (30.06.2004)

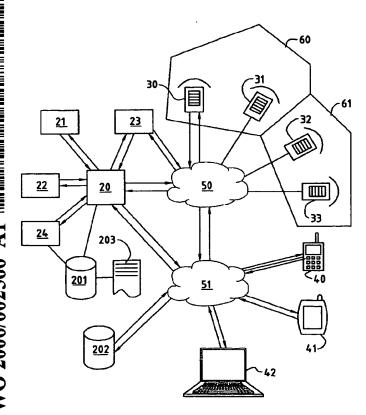
(71) Applicant (for all designated States except US): SWISS REINSURANCE COMPANY [CWCH]: Mythenquai 50/60, CH-8022 Zurich (CH).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): FEYEN, Hans [BE/CH]; Trichtisal 5, CH-8053 Zurich (CH). MEHLHORN, Jens [DE/CH]; Feldeggstrasse 77, CH-8008 Zurich (CH). OEHY, Christoph [CWCH]: Zschokkestrasse 25, CH-8037 Zurich (CH).
- (74) Agent: VOGEL, Dany; Isler & Pedrazzini AG, Gotthardstrasse 53, P.O. Box 6940, CH-8023 Zurich (CH).
  - Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US (patent), UZ, VC, VN, YU, ZA, ZM, ZW
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR AUTOMATED LOCATION-DEPENDENT RECOGNITION OF FLOOD RISKS



(57) Abstract: The invention relates to a system and method for automated location-dependent recognition of flood risks, whereas a central unit (20) comprises a lookup table (203) corresponding to a spatial high resolution grid (60/61) based on decentralized measurements of flood risk factors of a specific territory, whereas the system comprises distributed gauging stations (5/30/31/32), to measure river discharge parameters (T) within a grid cell (60/61), whereas the central unit (20) comprises a correlation-module (21) generating an event-specific averaged probabilistic water depth value (H) for an flood event based on the linked flood risk factors and the river discharge values, and whereas the system comprises an cell arbitrator module (22) accting on at least on grid-based composition module (23) according to the avaraged probabilistic water depth values (H).

WO 2006/002566 A1 |||

## WO 2006/002566 A1



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, Cl, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

#### Published:

with international search report